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bow and arrows, digging sticks, baskets, small hammocks, a water jar or two, a mortar and pestle, several fishhooks, fire sticks, and scraps of clothing. As a rule, each family will possess the minimum of these objects.

CANOES.—A typical Yaruro canoe measured about 18 feet long. Its longitudinal cross section was as shown in plate 16, *S*. It was made of the "salao" wood.

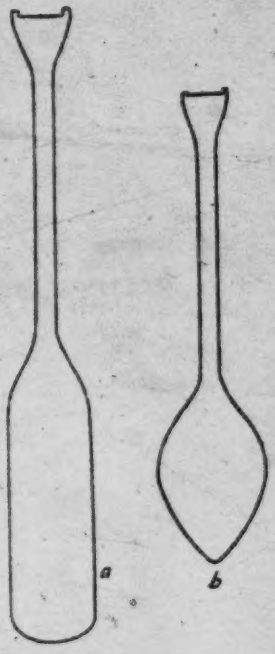

FIGURE 16.—Paddles. *a*, Type usually used by stern paddler. *b*, Generally used in the bow.

The only tools that the Yaruros have to fashion such a canoe are crude machetes, perhaps an ax, and fire. The canoes are never regular in outline and on the whole are rather crude. Both bow and stern end in a point and the bottom is round. These canoes are unstable, difficult to maneuver, and will split easily. No crosspieces are used to reinforce the canoe.

PADDLES.—Paddles are of two types, as shown in figure 16. The large paddles measure about 4 feet in length; the smaller paddles slightly over 3 feet. They are as crudely fashioned as the canoes and increase the difficulties of paddling.

BOWS.—The bows are fashioned from macanilla or the mahagüillo wood. A large bow will measure about 6 feet, but most of them are closer to 5 feet. The inner surface of the bow is generally flat and the outer is curved. The greatest width on one such bow was about 1½ inches and its thickness less than 1 inch. When the string is relaxed these bows are perfectly straight. They are not reinforced unless they show signs of splitting. On the whole, these bows are inferior to those made by many other tribes in South America. The bow string is tied as shown in figure 17, *e*, *f*, *g*,[1] with three clove-hitch knots.

ARROWS.—The Yaruros, like most other South American primitives, have a variety of arrows, each type being designed for a specific purpose. A fish arrow consists of a reed shaft to which is attached a bone point with resin and string. Often the upper end of the bone point will protrude away from the shaft to form a small barb. Three feathers are used and fastened as shown in figure 18, *f*, *j*, *k*.[2] At the feathers' end of the arrow a notched piece of Brazil-wood is inserted.

A somewhat similar arrow with an iron point is made. In this case the point is inserted into a worked piece of wood which, in turn,

1 [See category 116, p. 205. --- Analyst]
2 [See category 116, p. 206. --- Analyst]

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Perhaps that is one reason why no man had in his possession more than three or four arrows—for the most part he had only one of the iron tip kind.

FISHHOOKS.—Most of the fishing is done with bow and arrow, but hooks are known to the Yaruros, and when they are able to obtain strong fine string they employ these hooks. Hooks are not only em-

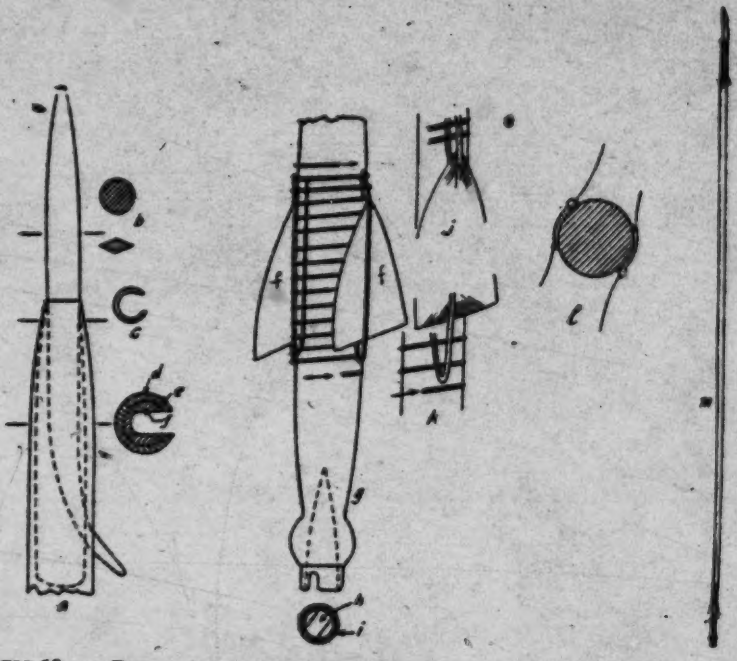

FIGURE 18.—*a*, Bone or iron point attached to shaft. *b*, Cross sections of points; round cross section is of the bone point; diamond-shaped cross section is of the iron point. *c*, Cross section of wax and twine binding. *d*, Cross section of reed shaft. *e*, Cross section of brazil wood to which point is actually fastened. *f*, Feathers. *g*, Butt end of arrow. *h*, Wooden plug nock. *i*, Reed shaft. *j*, *k*, *l*, Method of fastening feather to the arrow. *m*, Fish arrow.

ployed for fish, but even for the chiguire, and sometimes for the crocodiles. The simplest kind is that shown in figure 20, *c*, which may consist of bone or wood. It measures about 6 inches in length. A stronger point of iron or hard wood is used for the manatee. This type is shown in figure 20, *d*. For crocodiles, generally a hard stick sharpened at both ends and baited with a large piece of meat is used. The crocodiles will swallow the stick and, if it is attached to a thick wire, it makes an excellent means of capturing these beasts.

DIGGING STICKS.—Next to the bows and arrows, the most important implement of the Yaruro is the digging stick, which will consist of a wooden handle from 3 to 4 feet long slipped into the handle of an

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225
322
284

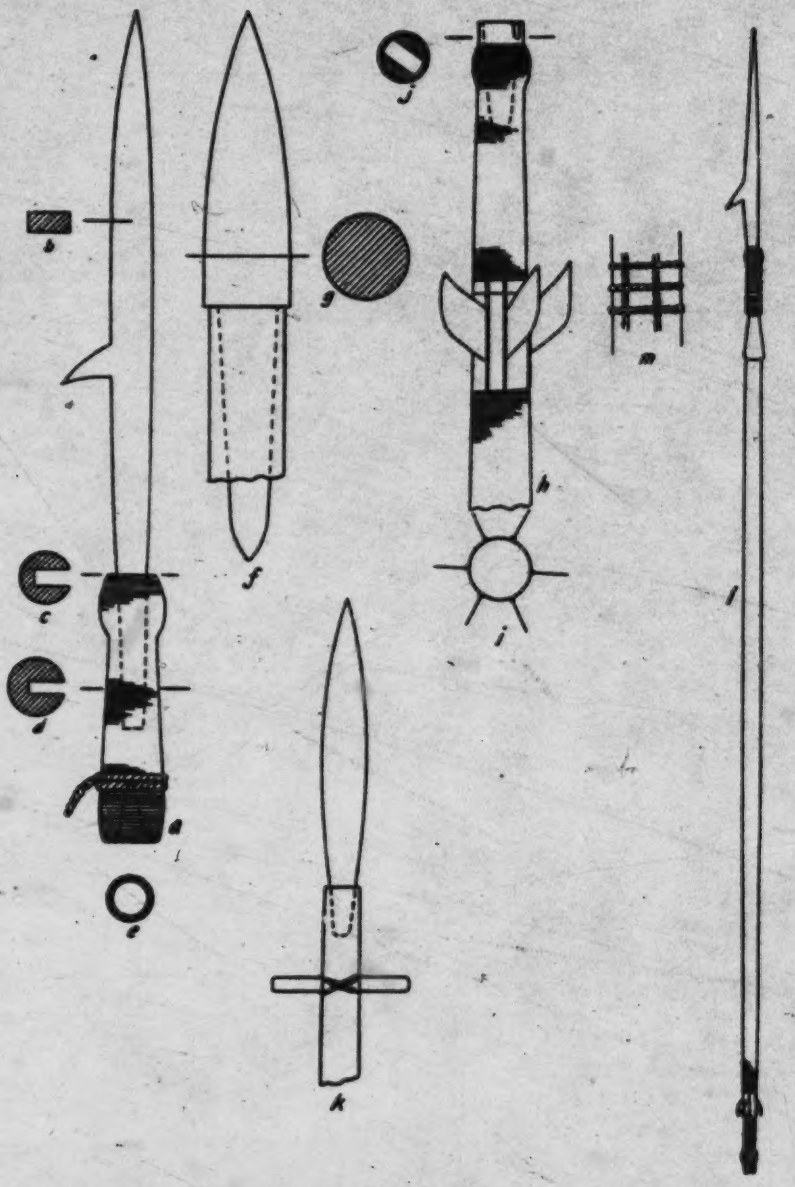

FIGURE 19.—*a*, Arrow point. *b*, Cross section of iron point. *c*, *d*, *e*, Cross sections. *f*, Details of point and wooden plug which is thrust into the reed shaft. *g*, Cross section. *h*, Method of fastening feathers to shaft. *i*, *j*, *m*, Details of *h*. *k*, Deer arrow, showing crossplace. *l*, Harpoon type of arrow.

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iron hoe, which is also made by the Yaruro out of any heavy scrap of iron that they may gather. Sometimes they will work for the ranchers and with their earnings purchase this type of hoe from a trader. However, such a digging tool is quite a luxury and sharpened sticks are more common.

MORTARS AND PESTLES.—During the rainy season, the Yaruros gather chigua, a seed, which they dry and pound into flour. Mortars of wood shaped as shown in figure 20, *a*, *b*, are used and the pestle is any ordinary hard stick.

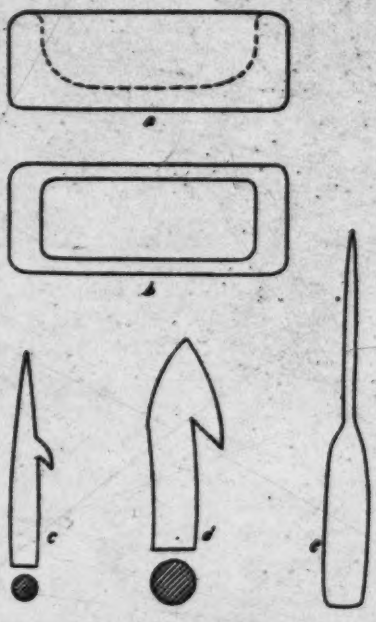

FIGURE 20.—*a*, *b*, Wooden mortar. *c*, Bone or iron point used for hunting chiguire. *d*, Hook used for manatee. *e*, Cooking paddle.

COOKING LADLES.—These are small wooden paddles used in cooking, especially when meat is boiling in a pot (fig. 20, *e*).

HAMMOCKS.—The Yaruros prefer to sleep on the sands, especially during the dry season. The men make hammocks, however, small ones generally used by children as cradles, and by the women shamans when they sing, during the day. During the rainy season they may employ them for sleeping.

The fiber employed to make the hammock string comes from the moriche leaf. The string may be very fine, of course, depending on the interest of the maker. It is made by the men. To weave the hammock a loom is made of two poles thrust into the sand to which are fastened two crosspieces at both the top and bottom. The string is then wound around these crosspieces. The weaver employs a knotter's netting technique. When the entire hammock has been woven the weaving is held in place by another string thrust through one of the woven rows.

ROPE.—The fiber mostly employed by the Yaruros is taken from the leaf of the moriche and the macanilla. The inner cortex of the leaf is stripped off and dried and then is taken apart strand by strand. These long fibers are then moistened and twisted together in two's and th..e's into a string by rolling them on the thigh with the palm of the hand. A stronger string is made in the same way and used for making hammocks. The bow strings are made from the fiber of the macanilla.

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linked, kept up rhythmic motion by bending the knees slightly and leaning forward. The men bent at the waist until the torso was horizontal, arms hanging down like apes, and made the same motion by bending at the knees. The motion was so very apelike that I wondered if the monkeys didn't enter in some way into the scheme of things. I was told that formerly they were people and when the flood came they climbed to the tops of trees, and have continued to live there ever since, gradually changing shape. When the circuiting around the pole began the men followed one another after the shaman, and the women made the outer circuit with the right hand on the shoulder of the woman in front. The right foot was stamped on the off beat.

ART

Of the arts, dancing, music, carving, painting, modeling, and perhaps drama, are present among the Yaruros. Every individual in the group participates in some form of artistic expression, even in connection with objects whose function is practical rather than aesthetic; each individual attempts to make them "tsaimui", that is "pretty", "good." Great care is taken in making baskets, pottery, arrows, and bows. Singing and dancing are universally practiced also. No individual feels that his voice is too poor to participate in the singing and no individual is shy about dancing. However, social custom limits the activities of the men and women in the plastic arts. Pottery making is the prerogative of the women. The carving of stamps and realistic figures from the asabache is done by the men. The low relief carvings on gourd rattles are the special products of the shamans. Of all these activities it is this last that comes closest to being inspired.

The making of baskets is woman's work. They take great pride in their workmanship, and make a conscious effort to reproduce various designs by employing several weaves. The patterns are rather limited, but then this may be due to the limited number of baskets which they make (fig. 21).

Pots are frequently broken in transport, but there is also very little use for them. One or two pots per family are all that is required. The porousness of the material is desired in order to keep the water cool. These pots are generally decorated with crude broad bands of red paint. The pottery decoration is reproduced in figure 22.

The women like to paint their faces. For this purpose the men make wooden stamps (pl. 22, *1*), which are dipped in red-ocher paste or a blue dye and the design is impressed upon the face. The designs are entirely geometric and rectilinear.

The asabache figures are of special interest because of their remarkable realism. The asabache is a black igneous material found